

During most of July and August I was away, and on my return there were two sets of young birds, but as they were growing more timid and never appeared altogether, I cannot tell their number. On the whole the year's nests have been more successful than is usual for the Cardinal Grosbeak, and we fondly hope that they will seek the shelter of our roof again next year.



AN EPIDEMIC OF ROUP IN THE CANANDAIGUA CROW ROOST.

BY ELON HOWARD EATON.

Plate II.

ABOUT the middle of December, 1901, a malady broke out among the Crows (*Corvus americanus*) of Ontario County, New York, which, ere spring, had decimated the ranks of the local 'roost.' As soon as winter had fairly begun, reports commenced to come in of Crows which had been "blinded by freezing of their eyes," as the farmers expressed it.

Upon careful examination it was found that the roup had invaded the Ontario flock, and birds were dying daily from its effects. In one field about twenty dead and dying birds were picked up in one day. Nearly every grove or large field within a distance of ten miles from the roosting-grounds displayed one or more dead Crows. Nearly every wandering crow's track in the snow, after circling round and round in an apparently aimless manner, would lead one to a black carcass lying under a tree or against a fence. Usually they sank down with their bills in the snow and their wings very slightly extended, but sometimes they died in a sitting posture with the feathers of the head ruffled up to their fullest extent. Often the birds died in trees, clutching the branches to the last and then falling headlong into the snow or landing on their backs with the wing tips pointing upwards.

All the sick birds were suffering from an acute inflammation of

the pharynx and the anterior portion of the head, including the nostrils and eyes. Often there was a mucous discharge from the nostrils. The eyes were usually blinded by a membrane forming over the exterior of the cornea. Sometimes only one eye was seriously affected, and this was usually the left one, as far as I noticed. If this membrane was rubbed off, the eye looked quite clear again and sight was temporarily restored, but within half an hour the membrane reformed and the patient would flutter about like a bird with the cerebellum destroyed or with the eyes shot out.

That death ensued from the acute disease and not merely from starvation due to blindness was abundantly proved by caring for sick birds and forcing food down their throats, for they died in nearly every instance. While it is true that those birds which survived the disease were, in every instance, birds that had been blinded in only one eye, we believe that this merely indicates that the roup was less severe in those cases, which was the cause at the same time of the slight affection of the eyes and of the bird's recovery.

It was believed by many that these Crows were suffering from having wet snow and sleet freeze on their 'faces' at night, and that one eye often escaped because it was more protected by being tucked under the feathers as the bird slept. There is little to support this theory, in fact it seems almost absurd. There have been many winters much more severe which seemed to have no effect on our crow roosts. The disease was an epidemic. This is further shown by the fact that no serious plague appeared either in the Rochester roost or in that near Niagara Falls.

Nevertheless, the disease disappeared with the coming of warmer weather. A visit to the roost about the last of March failed to discover a single sick bird, although hundreds of corpses were lying about the grove and in the surrounding fields. The last evidence of the disease which I saw was a bird sitting in an open field on the sunny side of the woods on April 6. When approached he flew lazily to a large oak and, lighting on one of the larger branches with some difficulty, proceeded to *rub his right eye on the bark*. The field glass revealed the fact that his eye was badly swollen, and the surrounding skin was partially bare of feathers.



SIX DEAD CROWS, LYING AS THEY FELL, UNDER THE PINES.

Photographed from Nature, Jan. 12, 1902.



SEVENTY-THREE DEAD CROWS, GATHERED FROM A PORTION OF THE
ROOST ONE HUNDRED AND FIFTY FEET IN DIAMETER.

Photographed from Nature, April 5, 1902.